instances, a payline may similarly be a one-dimensional straight line, or a two-dimensional zig-zagging line, as will be readily appreciated.

Multi Layer Displays

[0061] Turning now to FIG. **5**, an exemplary processor-based gaming machine having a multi-layer display according to one embodiment of the present invention is illustrated in partial perspective and cut-away view. Although the various gaming machines, devices, systems and methods involving more realistic emulations of physical reels and/or wheels set forth herein can be used on many types of processor-based gaming machines or systems, it is specifically contemplated that such devices and techniques can be applied to a gaming machine, terminal or system having a multi-layer display, such as multi-layer display gaming machine **100**. It will be readily appreciated that multi-layer display gaming machine **100** can be substantially similar to processor-based gaming machine **10** described above, with the notable exception that a multi-layer display is installed within gaming machine **100**.

[0062] Such multi-layer displays in a gaming machine can include, for example, those that are from or similar to commercially available products from PureDepth, Inc. of Redwood City, Calif. The PureDepth technology incorporates two or more LCD displays into a physical unit, where each LCD display is separately addressable to provide separate or coordinated images between the LCDs. Many PureDepth display systems include a high-brightened backlight, a rear image panel, such an active matrix color LCD, a diffuser, a refractor, and a front image plane; these devices are laminated to form a stack. The LCDs in these units are stacked at set distances, such as distance "D." As well as the binocular depth cue, PureDepth units feature intrinsic motion parallax, where the x and y distance changes between objects displayed on different video planes depending on viewing angle. In addition, separate focal planes may literally be brought in and out of focus depending on the focal length of the lens in the viewer's eye.

[0063] The layered display devices **118***a*, **118***c*, which may be layered LCD devices, for example, may be used in a variety of manners to output games on a gaming machine. In some cases, video data and images displayed on the display devices **118***a* and **118***c* are positioned such that the images do not overlap (that is, the images are not superimposed). In other instances, the images overlap. It should also be appreciated that the images displayed on the display screen can fade-in fade out, pulsate, move between screens, and perform other inter-screen graphics to create additional affects, if desired. Further, although described with respect to LCD screens or devices, it will be readily appreciated that other display technologies may also be adapted for use with respect to such multi-layer displays.

[0064] In a specific embodiment, display devices or screens **118***a* and **118***c* display co-acting or overlapping images to a person or viewer **1** looking at the display devices at a front display panel **126** and along a line-of-sight **2**. For example, front display screen **118***a* may display paylines in transparent portions that illuminate winning combinations of reels disposed on back display screen **118***c*. With respect to further examples, it is again noted that external loading and changing of simulated reel games can be had with gaming machine **100**, such as described above with respect to wager-based gaming system **50**. This can permit a casino or gaming establishment to change video or visual images on each of the layered display devices, and their transparency, without physically altering the gaming machine or requiring maintenance. Thus, the number of virtual slot reels may be changed from 3 to 5 to 9, or some other number. In this case, each display device or screen **118***a*, **118***c* can change the position of its viewing window for viewing of the different number of virtual slot reels. Symbols on each virtual slot reel may also be changed. Also, a pay table shown on front display device **118***a* may be changed at will, in addition to changing whether a bonus or progressive game is shown on the back display device **118***c*, for example. This permits the same multi-layer display gaming machine **100** to play new games simply by downloading data onto the machine.

[0065] As will be readily appreciated, the layered display devices **118***a*, **118***c* may be used in a wide variety of manners to output games on a gaming machine. In some cases, video data and images displayed on the display devices **118***a* and **118***c* are positioned such that the images do not overlap, while in other instances, the images do overlap. It should also be appreciated that the images displayed on the display screen can fade-in fade out, pulsate, move between screens, and perform other inter-screen graphics to create additional affects, if desired. The multiple display devices may each display their own graphics and images, or cooperate to provide coordinated visual output. Objects and graphics in a game may then appear on any one or multiple of the display devices, where reels and other graphics on the front screen **118***a* blocks the view objects on the back screen **118***c*, depending on the position of the viewer relative to the screens. This provides actual perspective between the graphics objects, which represents a real-life component of 3D visualization.

[0066] In some embodiments, the multiple display screens or devices output video or other visual images for different games or purposes. For example, one display device may output a reel game, while another display device outputs a bonus game or pay table associated with the other display, while still another display device provides a progressive game or is reserved for player interaction and video output with a touchscreen. One or more display screens or devices may also present one or more gaming wheels, which may be shown as static, in motion, or preferably both at various times. Other combinations may be used, as may be desired. Furthermore, while the foregoing embodiment has been described with respect to only two screens, it will be readily appreciated that additional screens may also be used for such a multi-layer display. For example, a middle screen (not shown) can be disposed between front layered screen **118***a* and back layered screen **118***c*, with such a middle screen also being adapted for the presentation of a coordinated video presentation or other visual image to a viewer. Still further screens may also be implemented into the multi-layer stack, as desired.

[0067] Wager based games output by the display devices or screens in such a multi-layer display may include, for example, any video game emulation that portrays one or more reels. Typically, the gaming machine simulates the rotation of the video reels using motion graphics for the symbols on the reel strips and motion graphics for the mechanical components. In various particular embodiments, the use of multiple screens may be made to account for any special effects or more realistic simulations that are desired through the use of a multi-layer display. For example, reel symbols may be moved from a back display to a front display and then to the back display again as they appear to rotate or spin along their